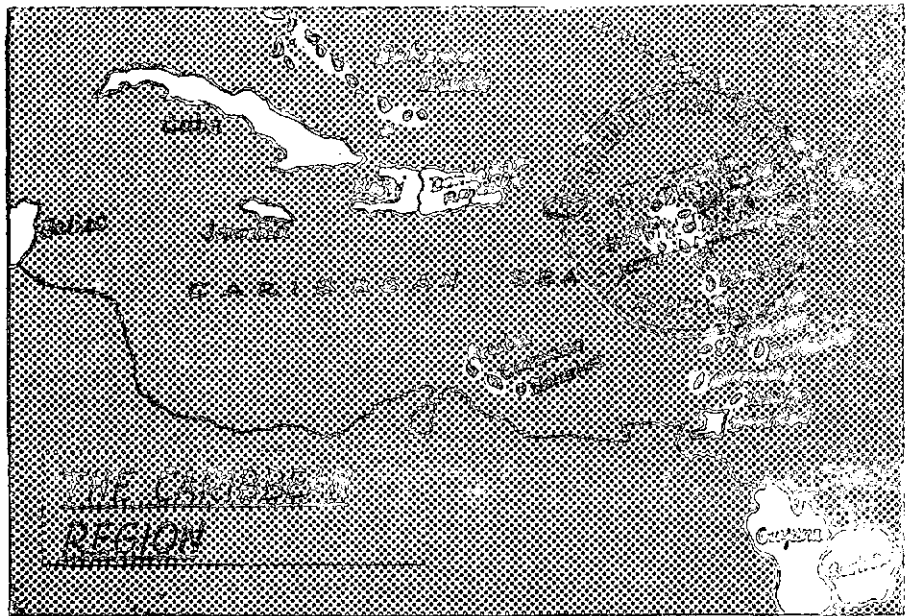


CARIBBEAN
DEVELOPMENT
AND
CO-OPERATION
COMMITTEE



CDCC/WP/78/3

9 January 1978

SECTION 1: A PROPOSAL ON THE ESTABLISHMENT OF A REGIONAL
CENTRE OF IMPROVED GENETIC MATERIAL FOR
AGRICULTURAL PRODUCTS

Submitted by the Dominican Republic Delegation
to the Second Session of the CDCC, Santo Domingo,
16 - 22 March, 1977

SECTION 2: NOTE BY CDCC SECRETARIAT ON THE PROPOSAL



UNITED NATIONS

ECONOMIC COMMISSION FOR LATIN AMERICA Office for the Caribbean

SECTION 1

A PROPOSAL ON THE ESTABLISHMENT OF A REGIONAL CENTRE OF IMPROVED GENETIC MATERIAL FOR AGRICULTURAL PRODUCTS

INTRODUCTION

The first Constituent Declaration of the Caribbean Development and Co-operation Committee clearly established that our countries share a proximity which is not only geographic, but also cultural and historic. It also recognized that they have inherited similar economic structures and have similarities in the majority of social and economic problems they face.

The need to seek common points in order to secure a greater degree of rapprochement and co-operation among our countries requires efforts on our part to establish priorities among the problems we wish to tackle and also an order of preference in respect of the action we feel we are in a position to carry out.

From the point of view of agricultural development, we cannot disregard phenomena as important as the current demographic explosion, the existence of low nutritional levels and the fact that agricultural cultivation for the production of items of mass consumption basically relies on an increasing number of small producers.

Under these circumstances our countries, in confronting a problem of the complexity described, are unfortunately not in a position to continue increasing their production by bringing new land under cultivation and therefore have to intensify all types of action designed to use the available agricultural land more efficiently. However, it is also necessary to continue efforts to improve the distribution of natural resources, especially land and water, and to seek new forms of organization of production in order to develop integrated agro-industrial structures which would make it possible to take advantage of, inter alia, the abundant solar energy which our countries possess.

Despite all the foregoing, we should not forget that in the medium term the possible technological changes will have to be made on the basis of a property structure which will not be able to assimilate capital-intensive technologies, either because the small producer does not have sufficient land or because the medium or large producer, although possessing sufficient land, cannot risk an increase of agricultural unemployment and rural poverty.

Taking into account these limitations, and in the conviction that even in these circumstances it is necessary to make a technological leap forward, we consider that one of the basic points of departure consists of seeking to produce high-yield species and varieties which are naturally compatible with the ecological conditions of our agricultural soils.

1. Justification of the Proposal

The major efforts being made in our countries are still concentrated in very specific sectors (rice, for example). Even in these cases, however, the countries have not succeeded in spreading their efforts so widely that they do not need to continue importing these types of goods in increasing quantities. We should therefore redouble our concern to attain more ambitious goals.

However, we should not only concern ourselves with the most important sectors, since the problem lies in securing mass production of all the foods which are particularly important in the diet of the lowest income groups of the population. Everyone recognizes that it has not yet been possible to secure acceptable levels of productivity on a broad scale for such important staple items as bananas, yucca, sweet potatoes and others. This is not only giving rise to problems of nutrition but also involves an unnecessary use of a proportion of natural resources which could well be oriented towards other sectors and lead to a further improvement in the income both of the farmers and of the countries as a whole.

It is also necessary to combine efforts and resources in the export sectors. However, we have not wished to include these sectors specifically in this proposal since there are other institutional mechanisms for them, such as empressarial groups, which can and should make their own arrangements. We therefore wish to isolate this problem in order to concentrate our efforts on overcoming the problem of the currently deficient nutritional levels of the bulk of the population, which means taking an integral approach to the production process.

The task of pooling regional and national efforts for this purpose and also of producing high-yield genetic material is not of course an easy one. For it all possible facilities are required, both institutional and juridical, as otherwise any effort would be of little or no avail.

It is also essential to take into account the efforts made by the various countries in research on and production of basic seeds, and to consider the advances which have been made by many international specialized bodies. All this is important and should be developed further. However, we are at present concerned with the question of creating an institutional mechanism which would pool technical resources and experience at the regional level.

The proposal we wish to make on this occasion is to set up a Regional Centre for the Production of Improved Genetic Material, concentrating on items for mass consumption, which are those which form a vital part of the diets in our respective countries.

The concept of pooling experience within this type of institutional framework not only has the advantage that a great deal of valuable experience can be put to use but also allows the possibility of greater continuity and acceptability for each and all of our countries.

2. Objectives

- a) To produce high-yield genetic material.
- b) To increase the productivity of agricultural land in those sectors which form part of the diet of the bulk of the population.
- c) To establish the general lines, related to the relevant legislation, which would guarantee the quality of the genetic material produced.
- d) To train technical personnel of the region so that the results obtained can be rapidly implemented in each of the countries.

3. Location

If this idea is approved, we would be in a position to offer all necessary assistance to enable the Headquarters of the Centre to be established in our country.

The Dominican Republic is a country which offers favourable ecological conditions for the realization of a project as vast and specialized as that being proposed. It has a diversity of micro-climates which are sufficiently representative of the Caribbean area to permit the production and reproduction of improved genetic material, and it possesses a basic infrastructure which can implement action in the shortest possible time. For example, we have CNIECA, CENDA and the Experimental Rice Station at Juma.

Furthermore, we already have some experience in this sphere, and also have technicians and the economic resources to contribute to their training which, if complemented with the technical and institutional experience and co-operation of the other countries of the area, would make possible a rapid realization of this ambitious scheme. What is important is that we should make a joint effort to pool knowledge which can be expended and assimilated, with the necessary guarantees and confidence, since what matters eventually is that farmers, wherever they might be, should be the main users.

The implementation of a project of the scope of this proposal also requires international co-operation and the assistance of other bodies, especially those universities which have a broad and deserved reputation in this sphere.

We are sure that the Specialized Agencies of the United Nations will show interest in this initiative and will be able to guide us in respect of the nature and functioning of the Centre. However, we would like to make it clear in advance that it would not be yet another institution entering the already extensive family of international bodies.

4. Organization and Implementation

The creation of this Regional Centre should meet with at least the following specifications:

Firstly, we would wish for the presence of technicians from all the countries of the area; secondly, it is important that the knowledge and experience acquired in the technological sphere should be sufficiently practical to be introduced in the short-term, especially on the part of the small producer; and lastly, it is necessary to create the juridical conditions to facilitate at the regional level the application and control of the genetic material produced by this Centre.

The accumulation of knowledge and the transfer of technology are slow systematic processes, hence the importance of seeking an institutional framework of a regional nature which would be sufficiently stable, and have enough prestige, to be able to influence and change the current levels of the productivity and production of basic foods.

In the implementation of this proposal it would be possible to take into account the experience of the various specialized bodies in this sphere, such as CIAT (The International Centre for Tropical Agriculture); CIP (The International Potato Centre); CIMMYT (The International Centre for the Improvement of Maize and Wheat); IITA (The International Institute of Tropical Agriculture) and others.

SECTION 2

NOTE BY CDCC SECRETARIAT

This proposal is very opportune as the Dominican Republic considers that the Centre should direct its activities to the area of food items entering mainly in the diet of the lowest income groups of the countries of the CDCC. The paper is well conceived and structured and presents in a concise way, the reasons for the existing low nutritional level in the region, the aim and objectives of the proposal, the location of the proposed centre and some advanced ideas about its organization and implementation.

The paper at the outset recognizes the urgent need for rapprochement and co-ordination in the solution of our common problems. In the field of agriculture the paper points out a critical area, whose main elements are the following:

- (a) Current demographic explosion;
- (b) Existence of low nutritional levels;
- (c) Production of agricultural items of mass consumption by increasing numbers of small producers;
- (d) Need for an intensive rather than an extensive type of agriculture due to limitations in the extension of the agricultural frontier in most of the countries.

On account of this, the paper proposes that the problem should be attacked by increasing the level of productivity in food items important in the diet of the lowest income groups by:

- (a) Production and dissemination of high-yield species and varieties especially in crops of low levels of productivity, i.e. staple items such as bananas, plantains, cassava, sweet potatoes and others;
- (b) Better distribution of natural resources (land and water);
- (c) New forms of organization of production (introducing agro-industrial structures and possible use of solar energy).

At the same time the paper recognizes that because of institutional and juridical aspects it is not a simple task to achieve the production of high-yield genetic material and the pooling together of both regional and national efforts.

The paper concludes, on the basis of the preceding, that a Regional Centre for the Production of Improved Genetic Materials be created, with the specific suggestion that it be located in the Dominican Republic because of favourable ecological conditions (micro climates) and the already established infrastructural facilities in the country. But at the same time the paper considers important the international participation in such an endeavour and accounts for research already or being done inside and outside the area. Finally, it refers specifically to Universities and to assistance to be obtained from specialized UN agencies.

First of all, the paper, though conceived with the aim of remedying the low nutritional levels in the countries of the sub-region, fails to mention that the extent of the problem is not properly measured for lack of existence of basic statistics for the very foods to which the proposal addresses itself (foods of mass consumption, produced mainly on small farms).

Secondly, though the paper recognizes that the production of "high-yield genetic material and the pooling of regional and national efforts for this purpose is not an easy task", it does not consider that the utilization of this improved material is tied with important factors such as:

- (a) Level of prices for those commodities;
- (b) Level of prices of different farm inputs (fertilizers, pesticides, weedicides, etc.);
- (c) New farm techniques (which must accompany the use of the improved material if efficiency is to be obtained);
- (d) Notion of farm administration (planning, costing, etc.);
- (e) Appropriate, sufficient and timely agricultural credit system;
- (f) Sure marketing structure and facilities (to guarantee production, sale and distribution of the produce).

To the merit of the paper it should be mentioned that, in order to achieve its goal, the Dominican proposal has indicated that a better distribution of national resources and new forms of organization of production be organized. The six important factors indicated above have to be taken into account if the proposal is to be a success in the implementation stage at national and regional level. This would also depend on the organizational structure of the entity proposed and the set of relevant policies adopted jointly and adapted or implemented in each country according to its own socio-economic and political background. But in all cases a series of basic conditions have to be fulfilled if success is to be obtained.

Functions

The Centre could have as principal tasks:

1. (a) Collection, storage and diffusion of the information on research carried in the different institutions and research centres within the CDCC area and outside. In this capacity the Centre would collaborate with the CDCC Documentation Centre presently in formation and would assist technically and financially the Documentation Centre.
2. Monitoring the activities in the different sub-centres and Universities of the area in order to:
 - (a) Keep abreast of development in the year-to-year programme discussed in common and agreed upon; and by so doing
 - (b) Avoid duplication.
3. Preparation of year-to-year programmes of activities in collaboration with the different sub-centres to be submitted for approval at the annual meetings of CDCC where and when the priorities are decided upon.
4. On-the-spot inspection or supervision of the relevant activities of the sub-centres, Universities and research centres.
5. Carrying out of regional surveys of different characters relating to the problem matter in order to assess the progress made in this field in the area.
6. Counselling on all legal aspects relating to certification, transfer and all other matters relevant to improved genetic materials.

7. Provision of technical assistance on request to sub-centres directly or sometimes through hired consultants.

Organization and Functioning

The proposed centre could be placed under the aegis of the CDCC Secretariat as a joint project, say UNDP/FAO/CDCC. The administrative part and supporting services could be provided by CDCC Secretariat while FAO would be in charge of the technical and advisory aspects. It is hoped that UNDP or other financial institutions would provide part of the financing. However, the countries of the area should make some contribution to help defray the expenses of such a project.

The research work of the centre could be mainly carried into three principal sub-centres which would be reinforced by the Centre. They are:

- (a) The Dominican Republic sub-centre which will group the activities of the existing experimental stations CNIECA, CENDA and the Experimental Rice Station at Juma;
- (b) CARIBBEAN AGRICULTURAL RESEARCH AND DEVELOPMENT INSTITUTE (CARDI) located in Trinidad which is mandated by CARICOM to carry out research on similar products for all the CARICOM countries;
- (c) The Cuban Centres of research which surely have been conducting research in those crops.

The reasoning behind the maintenance of a few sub-centres is in direct relation with avoidance of multiplicity of such centres and spreading of scarce financial and technical resources. Moreover, the Centre and those sub-centres are supposed to work in collaboration with or in reinforcement of existing research centres or experimental stations in other CDCC countries.

Besides the reliance on sub-centres for the experimenting and production of improved genetic materials, the Centre would count on the help of similar centres existing in Latin America and outside the region working in research in tropical agriculture like: The Inter-American Institute of Agricultural Sciences (IICA); The International Centre for Tropical Agriculture (CIAT); The International Potato Centre (CIP); The International Centre for the Improvement of Maize and Wheat (CIMMYT); The International Institute of Tropical Agriculture, etc.

Before the creation of the Centre, it is recommended that a pre-feasibility or feasibility study be undertaken for which the following lines of action could be suggested among other things:

- a) The realization of an inventory of existing research institutions and experimental stations and their characteristics in each and every country of the CDCC area along with a list of skills presently available and a repertory of works - already carried out and those in the process - on the relevant crops.
- b) The carrying out of a survey on yield of the crops concerned in each individual country with a view to arrive at a better estimate of production (actual and potential) using the latest census results or other reliable information on areas planted.
- c) The determining of apparent consumption in those crops (production plus (+) import less (-) export).

On the basis of the preceding minimum basic information and others the feasibility study group would then prepare:

- a) A tentative work programme of activities on a long-term basis;
- b) An estimate of the personnel (administrative and technical) needed to perform the functions indicated in the relevant section of this paper; and linked to that
- c) A preliminary budget for the operation of the Centre, the services of consultants, the travels between the centres and the sub-centres on one side and to other centres and conferences on the other and the estimated cost of specific experiments or activities carried out in different sub-centres on behalf of the Centre; finally,
- d) An appraisal of the situation in each individual country or territory with specific recommendations as to alternative measures that the country or territory would see fit to apply in order to ensure that the programme in its implementation would not suffer any setback.

In this last regard the Secretariat is referring specially to suggestions related to: Organization of production on small farms - use of adequate inputs - appropriate marketing system tied to schemes of guaranteed market and minimum prices and supervised credits.

